

## What are bed bugs?

Bed bugs are small insects that feed on human blood. They are usually active at night when people are sleeping.

Adult bed bugs have flat, rusty-red colored oval bodies, no wings and are about the size of an apple seed. They are big enough to be easily seen, but hide in mattresses, box springs, bedding, cracks in furniture, floors, or walls. When bed bugs feed, they swell and become brighter red. They can live for several months to over a year without feeding. They don't jump or fly, and they crawl and move about the same speed as an ant.

## How do I know if my home has bed bugs?

Look for signs of an infestation that may include:

- Itchy skin welts on your body
- Small blood smears on bedding from crushed insects
- Tiny dark spots on your sheets, mattress or box spring which are their fecal droppings dried remains of shed bed bug skins



Be aware that other insects, such as fleas, ticks, and mosquitoes can leave bites that look like bed bug bites. Bites alone cannot prove you have a bed bug infestation.

**Important note:** The only way to be sure you have a bed bug infestation is to find and positively identify a live bed bug.

If you suspect you have bed bugs, you will have to conduct a thorough search of your home. Bed bugs are hard to find because they hide in, under, and around beds. They also hide inside, under, and behind furniture, and in small cracks or corners in furniture, floors or walls or in carpeting close to where they feed at night.

Newly hatched bed bugs are about the size of a poppy seed, pale yellow in color, almost transparent, and very difficult to see. Once they have fed, they become larger and are red or brown in color which makes them easier to see. Bed bug eggs are white and about the size of two grains of salt. When laid, they are cemented to surfaces making them difficult to remove.

## What do bed bug bites feel and look like?

A bed bug bite is painless and some people have no reaction to the bites at all. Most people have itchiness, red spots, or welts that look like mosquito or flea bites hours later. There may be an itchy

bump but the tiny bite mark may not be visible. These usually fade after several days. A few people have severe allergic reactions.

Bed bugs usually bite at night while you are asleep. If you wake up in the middle of the night and find a bug on your bed, don't squash it – instead, completely seal a live sample in a clean zip-style sandwich bag and have the bug identified by a pest control operator.

## **Are bed bugs dangerous?**

Bed bugs bites are a nuisance and annoying, but bed bugs are not known to spread diseases. Try not to scratch bites because it increases the risk of skin infections. If you have a severe reaction to a bed bug bite, see your doctor.

## **How do bed bugs get into homes?**

Bed bugs are not a result of poor housekeeping. Anyone can have bed bugs. People bring bed bugs into their homes unknowingly in infested luggage, backpacks, purses, furniture, bedding, shoes or clothing. They can also travel between apartments through cracks in walls and floors.

Total release pesticide foggers or 'bug bombs' can force bed bugs into adjacent apartments. **DO NOT USE: 'Bug Bombs'**. They do not control bed bugs and using 'bug bombs' improperly can be dangerous and spreads pesticide throughout your home.

If you have bed bugs and live in a rental property, notify the property manager immediately. **Do not use pesticides to treat for bed bugs yourself.** "General use" pesticides are not effective against bed bugs and their use may cause the bed bugs to spread to adjacent units.

## **Where do I look?**

Bed bugs can hide anywhere but usually close to where people sleep. Find bed bugs early by inspecting your bed and bedding each time you remove the sheets for washing. Check around the edge of the mattress and box springs, in seams and under buttons and tags. Remove the thin cover material on the underside of your box springs, a common hiding place, and look inside. If you have a headboard, footboard or bed frame, carefully inspect the corners, cracks and screw holes for bed bugs.

Bed bugs can hide in nearby bedroom furniture, baseboard heaters, window sills, curtains, nightstands and dressers. Remove the drawers and look inside in corners, in cracks, screw holes, and under each piece.

**Using a flashlight and 10x magnifying glass can help to spot the small bugs in dark, tight areas.**

Check upholstered furniture, sofas, and recliners. Look under cushions and the skirt of upholstered furniture. Turn upholstered furniture upside down and carefully look at the underside for signs of bed bugs. Look behind pictures and wall hangings. Inspect curtains or other window coverings.

Bed bugs hide under carpet edges where carpets meet walls; if necessary, pull up the edge of wall-to-wall carpeting.

Examine loose wallpaper, cracks in plaster and walls. Inspect window and door casings and moldings. Bed bugs may hide behind baseboards and wood trim moldings. It may be necessary to remove these moldings to find hidden bed bugs.

Inspect throw rugs, electronics (TVs radios, clocks, computers, CD players, DVD players) and especially clutter (books, papers, magazines, clothes).

## **How do I get rid of them?**

Bed bugs are very difficult to get rid of because they are hard to find and kill. Making your home bed bug-free will take time and effort from you, the housing manager (if the home is a rental unit), and a pest control company.

The best way to eliminate bed bugs is early detection, regular cleaning and inspecting, and targeted pesticide use by a pest management professional. This includes regular cleaning and vacuuming, steaming to kill bed bugs, laundering and drying clothes on high heat, and precisely applied pesticides directly on bed bugs. Bed bugs are killed when they are sprayed directly; sprays that have dried are not very effective. Pesticides should only be used by licensed pesticide control operators.

### **Bed Bug elimination is generally a 5 step process:**

#### **Step 1: Before the pest control operator arrives:**

If you have bed bugs, wipe them up with a wet rag and crush them. Mild soap and water will also remove bed bugs and eggs, but not necessarily kill them. The key to cleaning is detail-oriented cleaning: simply dousing an area with soapy water will not help control bed bugs. Dirty wash and rinse water may be placed in a toilet and flushed down the sewer. You may also use a commercial steamer using “dry steam” steamer to kill the bed bugs and eggs, just be careful not to use too much pressure and blow them away before killing them. Steam will also kill the eggs. Vacuuming will also reduce large numbers of bed bugs quickly. Be careful not to spread the bed bugs to other areas of the house and properly dispose of the vacuum bag immediately after vacuuming to prevent the live bugs from crawling out of the vacuum. Seal used vacuum bag in a plastic bag and dispose it in an outside trash can.

Save a live bug sample in a zip-type sandwich bag. Coax the bug into a bag, gently flatten the bag to press out the air, and seal it completely. Have the sample inspected and the type of bug positively identified by a pest control operator. If you find bugs that do not look similar, save samples of the different bugs in separate bags. There may be bed bugs at different life stages, or there may be different types of bugs. The method of pest treatment will depend on what type of bug is present. A pest control operator will correctly identify the type of pest(s) present before they recommend a method of treatment.



## **Step 2: Obtain the services of a pest control operator:**

You will most likely need a pest control operator to help you eliminate a bed bug infestation, especially in a multi-family setting. Success requires knowledge and experience in finding infested areas (including neighboring units) and using a combination of control methods to eliminate them. Elimination methods will include a combination of non-chemical and chemical controls available only to a licensed pest control operator. A pest control operator will give instructions on how to prepare for an inspection and treatment of a dwelling unit. Follow the pest control operator's instructions. Failure to do so could potentially spread the infestation to other areas within the home or to adjacent units. There are many non-chemical measures available to help eliminate bed bugs. A pest control operator will ask for your help in eliminating the infestation. You may be asked to vacuum floors, beds and furniture, launder linens and other clothes, and install mattress and box spring encasements, and remove clutter.

## **Step 3: Remove clutter (as directed by the pest control operator):**

Clutter provides bed bugs a place to hide. Remove all clutter. Follow the pest control operator's directions to prevent spreading bed bugs. In the future, keep everything off the floor including old magazines, books, clothes, and keepsakes. Discard all unnecessary and unneeded items. Do not store things under the bed. Place all discarded items in plastic bags and place them in the outside trash where someone else will not get them.

## **Step 4: Clean (as directed by the pest control operator):**

Clean areas where bed bugs are likely to hide. Use soap and warm water on surfaces that will not be damaged by moisture. Clean or vacuum bedding, linens, curtains, rugs, carpets, and clothes. Wash items in hot water and dry them on the highest dryer setting. Items that cannot be washed (like wool or fabrics that may shrink, stuffed animals or shoes) may be placed in a dryer on high heat for 30 minutes. Check to make sure high heat will not damage these items.

Dry cleaning will kill bed bugs but you must deliver clothes in a sealed plastic bag and inform the dry cleaner the items may be infested with bed bugs. Some dry cleaners may refuse infested items because they could escape and be taken home by other customers.

Scrub mattress seams and stitching along the mattress edge with a stiff brush to dislodge bed bugs and their eggs. Vacuum by scraping the seams and stitching with the crevice tool attachment, or while using a stiff brush to loosen eggs. Vacuum mattresses, bed frames, furniture, floors and carpets. Pay special attention to cracks, corners and hiding places.

After cleaning the mattress and box spring, cover them with bed bug proof mattress and box spring covers (encasements) that have been tested and proven to control bed bugs. These tight fitting bags keep bed bugs from getting into or out of a mattress or box spring and must be bed bug proof and rip-resistant. Avoid plastic encasements that are uncomfortable and may tear easily. Tightly zip the encasements closed so that bed bugs do not crawl through a gap at the end of the zipper. Leave the encasements on for a minimum of one year.

Independently tested bed bug proof brand mattress and box spring encasements can be found on the web by doing a search on "mattress encasements". Box springs are structurally more

complex and have more hiding places than mattresses; encase the box springs if only one cover can be purchased.

Vacuum carpets, especially along edges and where the carpets meet the walls.

### **Step 5: Disposal:**

Prevent the spread of bed bugs. Do not resell or donate infested furniture or clothing. If you throw infested furniture away, make it unusable by destroying it or slashing the upholstery. Seal infested items in plastic bags before moving to prevent spreading bed bugs on the way to the outside trash. Spray paint or mark discarded items "Infested with bed bugs!"

After vacuuming, immediately place the vacuum cleaner bag in a sealed plastic bag and dispose of it in an outdoor trash container. Bed bugs can crawl out of vacuum cleaner bags.

Discard infested items that cannot be cleaned. If you decide to dispose of your mattress or box springs, wrap and seal them tightly in plastic before carrying them outside. Mark them with the words "Bed Bugs" to prevent someone else taking them home.

### **If I have bed bugs, how can I sleep at night?**

If you have bed bugs it is not necessary to get rid of your mattress or box springs. Encasements will prevent bed bugs from hiding in your mattress and box springs, but if you have bed bugs in other places, they can still crawl into your bed. Pesticides should not be applied to the top of mattresses, sofas or other items where people have close contact. A bed bug proof encasement protects mattresses and box springs without pesticides.

Create a bed bug free island after washing bedding, disinfecting the bed frame, slats, and head and foot board, and use interceptors. Interceptors are placed under the legs of the bed to trap and keep bed bugs from crawling between the bed and the floor. Interceptors help confirm that an infestation is gone when there are no longer trapped bed bugs.

Keep the bed away from walls and bedding off the floor so that the bed and bedding do not touch the floor or walls, and do not put clothes or other items on the bed; these give bed bugs a way to climb into your bed.

### **Do I need a pest control company?**

Using a combination of non-pesticide techniques and a precisely placed application of pesticides is the most effective and practical way to eliminate a bed bug infestation.

To completely eliminate bed bugs, it will most likely be necessary to contact a pest control company. A resident or homeowner using only non-chemical treatment methods may notice they're not effective or efficient enough to be able to eliminate or even control this pest. A resident should never use pesticides to treat for bed bugs because of the risk of spreading the infestation to other areas.



## **Will a pest control company use pesticides?**

Pesticides will be used, as needed, in combination with other non-chemical treatment methods. However, using only pesticides to eliminate bed bugs is not effective enough to eliminate this pest.

Non-chemical treatment methods include:

- clutter removal
- keep non-infested items in a sealed plastic bag during the treatment period
- keep infested items in sealed plastic bags until they are treated
- use of interceptors and barriers to prevent movement of bed bugs
- use of soap and water to clean items not damaged by moisture
- hot water laundering and high heat drying of washable items
- use of dissolvable laundry bags for infested items
- use of steam on hard-to-reach and hard to clean areas
- use of mattress and box spring encasements
- vacuuming visible bed bugs and disposing of live bed bugs
- ambient heat treatments to 130° to 140°F by using approved external heat sources, fans and recording thermometers to heat all items in the infested area

## **Can I apply pesticides myself?**

**NO.** General use or 'over the counter' pesticides are not effective in killing or eliminating bed bugs. Even pesticides available only to licensed professionals have limited effectiveness. Bed bugs have developed resistance to certain pesticides. Using pesticides incorrectly can make the problem worse by causing insects to scatter and move into walls, hard to reach places and other parts of the home.

Do not use bug bombs or foggers – they do not work against bed bugs and spread hazardous chemicals throughout your home.

## **How can I prevent infestations?**

- Change your bedding, pick up clutter, clean and vacuum at least twice a month. Weekly is even better. Look for bed bugs while you clean especially around the edge of the mattress and the box spring. A careful inspection of these areas will help prevent bed bugs from becoming established and catch infestations early. An early infestation is easier and cheaper to treat than an established population of bed bugs.
- Check all used items you bring into your home carefully for bed bugs and eggs. Inspect all used furniture, mattresses or box springs, bedding, and used clothing and books. Remember: eggs and the immature bed bugs are very small and easily overlooked.
- Stay clutter free. Remove boxes and other stored items in bedrooms. Keep your bed bug-free by keeping it away from walls. Keep bedding from touching the floor and keep clothing and other items off the bed.

- Clean regularly and eliminate hiding places. Seal cracks, crevices, and hiding places. This will also discourage movement of bed bugs from one place to another. Repair and seal cracks in plaster, walls, and baseboards; repair or remove loose wallpaper.

### **Other helpful hints**

- If you use interceptors, inspect them regularly to see if there are trapped bed bugs.
- If you buy a new bed, covering the new mattress and box spring with new encasements and placing interceptors under the bed legs will help prevent possible infestations in the future.

### **How can I keep bed bugs out of my home?**

When you travel, ask your hotel about their bed bug inspection policy. Inspect your hotel bed as soon as you arrive – lift off the bed sheets, and check sheets and mattress edges for bugs or dark fecal dropping spots. If you see any signs, inform the hotel. Consider moving to another room or changing hotels.

Immediately after trips, wash clothing and inspect luggage and shoes. Thoroughly vacuum luggage inside and out before storing. Use a dry scrub brush to remove bed bug eggs that may be present. You can also seal the luggage in a plastic bag for at least a year. Any eggs or bed bugs hidden in the luggage will hatch and the bed bugs die without feeding.

Inspect and clean used furniture, clothing and books for bed bugs before bringing it into your home. Don't take home discarded bed frames, mattresses, box springs, or upholstered furniture.